

7 - Liquid Refractive Index - Mineral Oil

Liquid Refractive Index - Mineral Oil - SRM 1922 is intended for use as a calibration material for refractometers, specifically for the refractive index range applicable to solutions of sugar and water. SRM 1922 is a mineral oil characterized for refractive index in the visible light range, and consists of one bottle of approximately 30 mL of liquid. Certified values of refractive index were conducted on a precision goniometer using the classical method of minimum deviation.

Certified values are given for the refractive indices at six wavelengths, at 20 °C, and for the change in n with respect to temperature, dn/dT valid over the temperature range from 15 °C to 35 °C:

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The refractive index corresponds to approximately 71.6 on the Brix scale.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

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SRM	Description	Unit Size	<i>n (at 20 C)</i>	<i>dn/dT °C⁻¹</i>	Wavelength (nm)
1922	Liquid Refractive Index - Mineral Oil	30 mL	1.47685 ± 2x10 ⁻⁵	-3.74x10 ⁻⁴ ± 3x10 ⁻⁶	467.8
			1.47583 ± 3x10 ⁻⁵	-3.74x10 ⁻⁴ ± 3x10 ⁻⁶	480.0
			1.47373 ± 2x10 ⁻⁵	-3.74x10 ⁻⁴ ± 3x10 ⁻⁶	508.6
			1.47149 ± 2x10 ⁻⁵	-3.74x10 ⁻⁴ ± 3x10 ⁻⁶	546.1
			1.46744 ± 2x10 ⁻⁵	-3.74x10 ⁻⁴ ± 3x10 ⁻⁶	643.8
			1.46945 ± 6x10 ⁻⁵	-3.74x10 ⁻⁴ ± 3x10 ⁻⁶	589.3

Certified values are normal font.
Reference values are italicized.
Values in parentheses are for information only.